Response to Comment R5-47 (continued)

are not included in the existing setting and impacts sections of the Draft EIR/EIS. However, information on how the Alamo River Silt TMDL will be applied, i.e., using interim targets and the phased time periods for meeting these targets, is provided in Table 3.1-14 -Water Quality Standards/Significance Criteria in the Draft EIR/EIS. Also note that the footnote at the bottom of Table 3.1-14 states that "[S]pecific measures and Best Management Practices designed to achieve the Draft TMDL requirements stipulated by the RWQCB Basin Plan are included in the IID Revised Drain Water Quality Improvement Plan.

According to the Basin Plan, the silt TMDL for the Alamo River is to be phased in over a period of 13 years. Modeling results from the IIDSS indicate that for the Proposed Project and Project Alternatives, the 12-year, flow-weighted, water quality average for surface drains discharging to the Alamo River will be below the Phase 1 TMDL numeric criterion of 320 mg/L. As more stringent TMDL numeric criteria are phased in, there is the possibility that over time, numeric criteria would not be met for the Proposed Project and various Project Alternatives based on the predicted (modeled) water quality data.

Because the IIDSS predicts impacts resulting from project implementation based on a Baseline condition that does not presuppose implementation of TMDLs, model results do not reflect future improvements to drain water quality based on the application of TMDLs. Nevertheless, it is clear that the reductions in tailwater discharge and sediment loading resulting from introduction of the Proposed Project are consistent with the objectives of TMDLs designed to reduce silt in IID drains. Therefore, although the IID Revised Drain Water Quality Improvement Plan is currently being developed and information on how the silt TMDL may affect project actions cannot be described with specificity, it appears likely that project actions will enhance the effectiveness of measures introduced under the TMDLs to control sediment discharge to the New and Alamo rivers.

For additional information, please refer to the Master Response on *Hydrology —TMDLs* in Section 3 in this Final EIR/EIS.

Response to Comment R5-48

The reference to the figure number is incorrect. The appropriate reference should be Figure 3.1-22. The typographical error has been corrected and is reflected in this Final EIR/EIS in subsection 3.1 under Section 4.2, Text Revisions.

Response to Comment R5-49

A graph of the historic elevation and salinity of the Salton Sea has been incorporated into the text as Figure 3.1-24a and is reflected in this Final EIR/EIS in subsection 3.1 under Section 4.3, Figure Revisions.

Response to Comment R5-50

In the discussion on COCs, the existing water quality conditions of the Sea are characterized based on available numeric data. This approach is used to establish baseline water quality conditions from which to determine impacts. Impacts to water quality in the Salton Sea are defined by the significance criteria spelled out in Section 3.1.4.2 of the Draft EIR/EIS. These impacts are determined by the numeric water quality standards established in both California and federal regulations.

Although it is possible to discuss chemical and biochemical inter-relationships that appear to be active in the Sea, we do not believe these relationships are sufficiently well understood to allow them to be used as bases for predicting how the Sea would respond to changes in constituent loadings. At present, the Salton Sea Accounting Model (SSAM) is the only tool available that provides reasonable predictions of how water quality and water quantity in the Sea would be affected by the Proposed Project and Project Alternatives. However, the SSAM is only able to generate model results indicating predicted Salton Sea water elevation, area, and salinity concentrations. Therefore, the ability to predict future water quality conditions in the context of complex chemical and biochemical inter-relationships is extremely limited and beyond the scope of the EIR/EIS.

As for the beneficial uses of the Sea, although all beneficial uses were not explicitly called out in the water quality section of the report, the beneficial uses and impacts relative to those beneficial uses are discussed in the corresponding sections of the Draft EIR/EIS, including Biological Resources (Section 3.2), Aesthetic Resources (3.11), and Recreation (Section 3.6). However, the Project proponents agree with the suggestion of the commenter that, for clarity, these criteria should be included in the water quality section. Accordingly, the

subsection 3.1.4.2 of Section 4.2, Text Revisions in this Final EIR/EIS includes an additional table listing all of the beneficial uses and the numeric and narrative WQOs for the potentially affected surface waters.

The terms "nutrients" and "other organic parameters" on page 3.1-75 in the Draft EIR/EIS will be clarified to eliminate the vagueness referred to by the commenter. Changes are indicated in subsection 3.1 under Section 4.2, Text Revisions, in this Final EIR/EIS.

It was an oversight that sediment was not listed as a topic of discussion at the beginning of the text. We hope that the responses noted above will make the section more relevant to the reader.

Regarding the comment on the readability, organization and relevance of the section, without a more specific comment no response is possible.

	Com No.	Page Number	Figure, or Table No.	Comment
R5-50				Sediment is not listed as a topic of discussion in the beginning of the section, although it is discussed in the text. The section should be reorganized and made more readable and more relevant.
R5-51	36.	3.1-75	Second paragraph	The statement that saltwater criteria are more appropriate for the Salton Sea should be supported and explained. In many ways, the Salton Sea is a unique environment, with its own issues, to which neither freshwater nor ocean water standards would necessarily be appropriate or protective. The EIR/EIS is trying to fit a square peg in a round hole by using standard water quality criteria as a measure of the significance of impacts.
R5-52	37.	3.1-81	Sediment	The discussion of sediment in the Sea should address both mineral sediment and deposition of organic matter. A large portion of the sediment load to the Sea is organic matter, and a large part of the sediment deposited on the Sea bottom is organic matter produced in the Sea.
R5-53	38.	3.1-101	Sec. 3.1.4.2	Although the significance criteria lists many criteria, most of them have nothing to do with the project. The significance criteria should be thoughtfully reexamined to identify representative criteria by which an accurate appraisal of the effects of the project on the Sea can be made. The EIR/EIS should not rely on irrelevant regulatory standards as a means of evaluating these effects. Other qualitative approaches could be used. Under the heading of significance criteria, significance criteria for the Salton Sea should be called out separately so that they are not confused with criteria that may apply to more standard waterbodies, like the Lower Colorado River or the Salton Sea tributaries.
R5-54	39.	3.1-133 3.1-139 3.1-149, and 3.1-157	Figures 3.1-31, 3.1-33, 3.1-35, and 3.1-37	The projections of elevation, area, and salinity are plotted at different scales in these four figures. This makes comparisons of the proposed action and alternatives to the no project alternative difficult and makes them look deceptively similar. Comparable graphs on all four figures should be plotted at the same scale to provide for fair comparisons.
R5-55	40.	Existing vs. Baseline	Figure 3.1-16 and 3.1-30	The text does not make clear what accounts for the 49- KAFY reduction in the inflow to the Salton Sea under the baseline relative to existing conditions. Compare figures 3.1-16 and 3.1-30 and note that they show that the reduction from the river would be 52 KAFY. The discussion of the derivation of the baseline inflow to the Salton Sea lacks sufficient detail. Instead of vaguely referring to "adjustments" that were made in the Salton Sea accounting model to account for assumptions about future baseline conditions, the adjustments should be described. Note that the value of 49 KAFY seems to be inconsistent with the value of 56,856 acre-feet given for entitlement enforcement in Appendix F. There is also a graphical error on Figure 3.1-30 in that the value of 2,803 KAFY at Mesa Lateral 5 does not match the value shown on the arrow below the text box.
R5-56	41.	3.1-106	Impact WQ-2, WQ-4, WQ-5, and WQ-7 (Selenium); and WQ-3, and WQ-6 (TSS and TDS and other COCs)	The discussion of impacts of selenium is a bit confusing since it includes discussions of TDS and TSS, without explaining the relationship (if any) to selenium. The result is that the significance of selenium (and TSS and TDS) is obscured. The water quality criterion of 5 µg/L needs a reference. What is this criterion intended to protect? The *concentration* of selenium is not the only issue; selenium *loading* is also important. The development of a selenium TMDL for the Alamo River, Imperial Valley drains, and the Salton Sea should be mentioned, and any project-related changes in loading should be discussed.

Response to Comment R5-51

We will edit the text and replace the following statement:

"Although freshwater criteria apply to the rivers and canals discussed elsewhere in this report, saltwater criteria are more appropriate for the Salton Sea."

with the following sentence:

"Although freshwater criteria apply to the rivers and canals discussed elsewhere in this report, in many ways the Salton Sea is a unique environment, with its own issues, to which neither freshwater nor ocean water standards would necessarily be appropriate or protective. The exception to this statement is for selenium, where EPA has identified a maximum concentration of 5.0 µg/L (see Table 3.1-14)."

Criteria for evaluation of impacts to the Salton Sea are discussed in section 3.1.4.2 of the Draft EIR/EIS, and the commenter is referred to the revisions to this section in subsection 3.1.4.2 under Section 4.2, Text Revisions, in this Final EIR/EIS.

Response to Comment R5-52

The discussion of sediment does include some discussion, albeit limited, of the organic content of sediment in the Salton Sea. This is due in part to the limited information available on the organic qualities of the underlying sediments. However, the sediment sources and characteristics of the sediment delivered to the Sea are not likely to change significantly as a result of project implementation. Therefore, extensive discussion of organic character of the sediments is not necessary.

Response to Comment R5-53

Even though the significance criteria in Section 3.1.4.2 of the Draft EIR/EIS may seem irrelevant to the commenter, the criteria are taken from the CEQA Guidelines (Appendix G) and form the basis from which to determine whether a project may have a significant effect. The hydrology and water quality criteria listed in Section 3.1.4.2 are universal to each of the geographic areas affected by the Proposed

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Response to Comment R5-53(continued)

Project, including the Salton Sea. More specific criteria pertaining to water quality are presented in Table 3.1-14. Because the impacts listed for each of the geographic areas (LCR, IID and Salton Sea) provide specific information on whether a particular impact exceeds specific criteria, calling out separate criteria for water quality and hydrology in each of the geographic areas would be redundant.

Response to Comment R5-54

The comment concerning different scales on Figures 3.1-31, 3.1-33, 3.1-35, and 3.1-37 is noted. The previous Draft EIR/EIS has been revised to reflect this concern. This change is indicated in this Final EIR/EIS in subsection 3.1 under Section 4.3, Figure Revisions.

Response to Comment R5-55

See *Master Response on Hydrology—Development of the Baseline*. Also, Figure 3.1-30 has been revised, See section 4.3, Figure Revisions.

Response to Comment R5-56

Comment noted.

The selenium concentration of 5 µg/L is the current EPA-established aquatic life criterion for chronic (long-term) exposures.

The Proposed Project will reduce both the volume of water and the mass of selenium imported into the IID Water Service Area. Because the mass of selenium entering the IID system governs the mass discharged to the Salton Sea, this reduction in imported selenium results in a reduction of mass loading to the Sea.

Refer to Impact BR-12 in the Biological Impacts Section of the Draft EIR/EIS.

Refer to the Master Response on *Hydrology—Selenium Mitigation* in Section 3 in this Final EIR/EIS for additional information on selenium impacts.

Com No.	Page Number	Figure, or Table No.	Comment
			While the discussion of the water quality impact of selenium might be reasonably limited in this section to exceeding a promulgated water quality standard, the practical impact of selenium would be on wildlife. The EIR/EIS should provide a more realistic and critical evaluation of the significance of the increased levels of selenium. If TMDLs are to be developed, then it seems reasonable that some sort of limits on loadings might be imposed. While it is probably too soon in the development process to know what the implementation approach might be, the EIR/EIS should at least address the issue. Referring the reader to the biological impact evaluation might be helpful.
42.	3.1-112 – 1.1-119	Impact WQ-8	This impact appears to include two different impacts; one is effects to Imperial Valley groundwater hydrology, and the other is inadvertent overrun and payback policy. The description of the latter suggests that it was recently included in the proposed project, and that may explain why it doesn't have its own impact number. If these are intended to be separate impacts, this should be corrected. The impacts of the IOP should be referenced to the IOP EIS/EIR (Reclamation 2002). The nature of the interrelationship of the IOP EIS/EIR and the IID/SDCWA EIR/EIS is unclear. For example, there are several unreconciled differences with respect to the quantities of water assumed for their respective baseline conditions. If the 59 KAFY for the IOP is "now part of the proposed project," then would this require a reevaluation of the appropriateness of deducting 56 KAFY for "entitlement curtailment as a result of river administration" from the baseline, as was apparently done in the baseline modeling? Data presented in the IOP EIS/R should be incorporated by reference and summarized in the transfer EIR/EIS. The differences or linkage between the 56 KAFY entitlement enforcement value shown in the appendix—the 59 KAFY IOP amount listed here and the 49 KAFY that can be determined by comparing figures 3.1-16 and 3.1-30—should be discussed, or the inconsistencies should be eliminated. It appears that the IOP will offset the entitlement enforcement and that the IOP could be accomplished by a number of means, including fallowing, which would have a less severe effect on the Sea than other conservation measures. If decisions are yet to be made about how the IOP will be accomplished, then the entitlement enforcement correction should be removed from the project baseline, and the impacts of IOP should either be included as part of the proposed action or in the cumulative impact section.
43.	3.1-120	Salton Sea Water Conserva-tion and Transfer. Water Quantity Impacts	The second paragraph states that the elevation of the Salton Sea is expected to drop approximately 7 feet over a 75-year period under the baseline assumptions. Previous comments have been directed at understanding how the baseline assumptions were derived. Due to the inherent complexity of the issues and the lack of clarity with which the EIR/EIS describes them, we remain skeptical of the assumptions that result in the Salton Sea losing 7 feet of elevation under the no action alternative. However, given these assumptions and the results presented, modeling indicates that the proposed project would cause the Sea elevation to fall to –245 feet (from the current elevation of –227.8 feet) in 2030. This would constitute about a 17-foot drop over 30 years. (Note that the water surface elevation is projected to continue to fall approximately 5 more feet, to an elevation of –249.7 feet msl, over the next 45 years.) The corresponding decrease under the baseline is not stated in the paragraph, but the modeled elevation appears from Figure 3.0-1 to be about –233 ft msl, about a 5-foot drop. Thus, the difference between the project and no action is about 12 feet over 30 years. The project would more than double the rate of elevation decline. The rate of

R5-56

R5-57

R5-58

Response to Comment R5-57

Please refer to the Master Response on *Hydrology—Development of the Baseline* in Section 3 of this Final EIR/EIS.

Response to Comment R5-58

Please refer to the Master Response on *Hydrology—Development of the Baseline* in Section 3 of this Final EIR/EIS.

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Com No.	Page Number	Figure, or Table No.	Comment
			decline is important because the baseline contains inherent uncertainty and is based on a number of assumptions that may be either incorrect or represent a worst case scenario for the Sea. However, if the baseline is incorrect, the total decline in the Sea will remain close to that described for the project. Thus, if measures are taken to reduce the rate of the Sea's decline under the No Action Alternative, and the Sea declines by only two feet over 30 years, that would not affect the assumptions of the project, which show that the Sea would still decline rapidly within the first 30 years. By assuming the worst case for the baseline, the relative project impacts have been minimized in the EIR/EIS. The EIR/EIS incorrectly ignores the effects of an increased rate of decline in elevation on the Sea. This should be described as a significant impact because it significantly accelerates the severe impacts to the Sea that should be described under other resource chapters in the document (for example, recreation, biology, and aesthetics) and makes restoration of the Sea nearly impossible.
44.	3.1-120	Salton Sea water quality impacts	A rapid decrease in inflow would result in a rapid decrease in volume and elevation of the Sea and would greatly accelerate the increase in salinity of the Sea in the model. If the assumptions of the No Action Alternative overestimate the impacts of no action, the resultant effects of the project would appear much more significant. However, even if the no action assumptions were accepted, the project would greatly accelerate the increase in salinity of the Sea relative to no action; for this reason, the impacts of the project on water quality should be considered significant. These impacts are primarily related to salinity, but any other contaminants, such as selenium and TSS, would also become concentrated. Therefore, additional water quality impacts that are not addressed in the EIR/EIS should be addressed. These include effects on circulation and mixing, dissolved oxygen, temperature, nitrogen and sulfur speciation, biological activity and chemical precipitation, and pathogens, among others. The continued viability of the Sea as an agricultural drain might be ultimately affected if the Sea cannot process the wastewater drained to it. The EIR/EIS does not discuss the restoration program, but by accelerating the decline in water quality of the Sea, the project would have significant impacts on the restoration program. The discussion of water quality impacts should indicate that these impacts would occur. By focusing the discussion of water quality impacts on selenium and herbicides/pesticides, the EIR/EIS rather ingenuously avoids the more difficult evaluation of the impacts that would actually occur.
45.	3.2-105 - 110		**Impact BR - 1 through Impact BR - 7** The current evaluation of the potential impacts of the water transfer on various Lower Colorado Region (LCR) wetlands and wetland associated habitats assumes that restoration of habitat would compensate for direct habitat loss. However, there is no documentation that restoration will actually attract birds. Seep areas with shallow water are particularly important for black rails (Evens et al. 1991; Flores and Eddleman 1993; Eddleman et al. 1994) in the LCR and Salton Sea area, and the decline of black rails in this region is likely the result of seeps being eliminated through lining of canals and pumping (Evens et al. 1991). Current managed wetlands in the LCR and Salton Sea area have few black rails, probably because water levels in managed wetlands around the Sea are maintained at deeper levels than black rails prefer, and maintaining very shallow water on marsh sites is difficult (Eddleman et al. 1994). If mitigation projects are not successful, impacts on rails and other species may be significant.
46.	3.2-112		**Impact BR - 10 Reduced Flows in Drains and Impact BR - 14 Installation of Seepage Recovery Systems** Reduced flows in drains that result in smaller and fewer seeps will likely significantly

R5-58 R5-59 R5-60 R5-61

Technical Review Comments: IID Transfer EIR/EIS 11 Salton Sea Authority

Response to Comment R5-59

Please refer to the following Master Responses in Section 3 of this Final EIR/EIS: *Hydrology—Development of the Baseline; Biology—Approach to Salton Sea Habitat Conservation Strategy*; and *Other—Relationship Between the Proposed Project and Salton Sea Restoration Project*.

Response to Comment R5-60

Your comment is noted. The previous Draft EIR/EIS has been revised so that the design of the mitigation backwaters will take into consideration the habitat requirements of the rail species. The change is indicated in this Final EIR/EIS in subsection 3.2 under Section 4.2, Text Revisions.

Response to Comment R5-61

There are no recent records of black rails drain habitats within the IID Service Area that are dominated by tamarisk and common reed. The amount and composition of existing vegetation in the drains is not expected to change appreciably under the Proposed Project. Surveys for black rails will be conducted as part of the HCP. If black rails are found using drain habitats, the species-specific habitat requirements will be incorporated into the design and management of the managed marshes. Considering that substantial changes in drain vegetation are not expected, the low probability for black rail occurrence in the drains, and the existence of a mitigation, monitoring and adaptive management program to address black rails, it was determined that this species would not be significantly adversely affected by the Proposed Project.

Seepage communities in the Project Area are limited to a few areas along the All American Canal and the East Highline Canal. Water conservation activities under the Proposed Project would not affect the seepage communities along the All American Canal. Installation of seepage recovery systems are proposed along the East Highline Canal as part of the Proposed Project. These seepage communities consist of diverse plant species, but arrowweed, common reed, and tamarisk are the most common species, with mesquite, cattails, and a few cottonwoods present in some areas. These communities do not provide suitable habitat conditions for black rails. Therefore, no impacts to black rails are anticipated from installation of seepage recovery systems along the East Highline Canal.

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	Com No.	Page Number	Figure, or Table No.	Comment
R5-61				affect black rails, as has already been documented for the region (Evens et al. 1991).
R5-62	47.	3.2-129		**Impact BR - 26 Water quality changes in the drains and impacts on sensitive species** The draft EIR/EIS suggests selenium levels will rise in the drains and this could affect clapper rails (as well as other species); the plan suggests that implementing the HCP would reduce this potential to less than significant. However, no support is given that birds will actually move to protected areas. This needs to be addressed.
R5-63	48.	3.2-133		**Impact HCP-BR-32 Creation of managed marsh habitat would benefit wildlife associated with drain habitat.** Creation of marsh habitat is anticipated to take 15 years to complete, but water transfer would take place in a much shorter time frame. The draft EIR/EIS needs to evaluate how the interval between when water is transferred and when marshes are created will affect wildlife. Most animals cannot wait 15 years.
R5-64	49.	3.2-137		**Impact BR-41. Reduced Drain Flow Could Affect Wetlands Dominated by Cattail/Bulrush Vegetation.** This does not discuss how the habitat is tied to the groundwater, which could be influenced by the Sea elevation. While inflows may not change, the dynamics of the groundwater table may be influenced, which could affect the health and viability of the species.
R5-65	50.	3.2-138		**Impact BR-42 Reduced Sea elevation could affect the acreage of adjacent wetlands dominated by tamarisk and shoreline strand.** The draft EIR/EIS suggests that no significant impacts will occur despite the potential loss of much of the vegetation associated with the riparian zone, which would impede the use of wildlife nursery sites (see 3.2.4.2 Significance Criteria Draft EIR/EIS). Colonial waterbirds nested at 21 sites along the Salton Sea in 1999 (Shuford et al. 2000), much of which occurred in *Tamarix*. Water levels under the proposed project would undoubtedly drop faster than *Tamarix* would colonize, which could significantly affect colonial breeders.
R5-66	51.	3.2-138		**Impact BR-42 Reduced Sea elevation could affect the acreage of adjacent wetlands dominated by tamarisk and shoreline strand.** This is listed as less than significant because "no special-status species depend on tamarisk." This is not true. Throughout the southwest, research is finding that where native vegetation is being out-competed by tamarisk, birds (notably the southwestern willow flycatcher) are adapting to tamarisk. Granted, it is not ideal habitat, but it is providing a function for this protected species. This point is also expressed on page 3.2-45 – "Bird species potentially using tamarisk scrub and other riparian habitat include yellow warbler, southwestern willow flycatcher…" Likewise, Section 2.3.4.2 of the HCP recognizes that tamarisk is the primary riparian vegetation and is important in that role. Given that colonization of exposed shoreline would not occur as fast as the drawdown, and, as acknowledge in the discussion, soil salinity may prevent colonization along exposed shoreline, the impact should be recognized as significant, at least during the short-term. (Per CEQA, there is a mandatory finding of significance for impacts on habitat of listed species [15065a]).
R5-67	52.	3.2-141 to 148		**Impacts BR-43 & 45.** The analysis for salinity does not assess the increase in salinity that could occur from the physical process of a smaller Sea size. Specifically, a smaller size could be subject to more mixing throughout the water column from wind and other climatic events. This could disturb Seabed sediment and stir up salinity, selenium, insecticides, boron, and nutrients on the Sea bottom, thereby speeding up the time in which chemical thresholds are exceeded.
R5-68	53.	3.2-141 to 148		**Impacts BR-43 & 45.** Selenium, insecticides, boron, and nutrient loads could likely affect invertebrates. This is not discussed or disproved.
R5-69	54.	3.2-141		**Impact BR - 44. Changes in the invertebrate community could affect shorebirds and other waterbirds.** Draft EIR/EIS suggests that a less than significant impact will occur to shorebirds and

Response to Comment R5-62

The approach to the Drain Habitat Conservation Strategy is to create an equivalent amount of managed marsh habitat as the acreage of vegetation currently supported in the drainage system. The size of the managed marsh would be adjusted to offset the reduction in reproductive output that could result Project-related increases in selenium in the drains. The managed marsh habitat would be of much better quality than drain vegetation as explained in Section 3.5 of the HCP. In the drainage system, water quality would decline slightly but the nature and extent of vegetation would not be expected to change substantially. An analysis of the potential effects of water quality changes and the resultant effects on species using drain habitat is provided in the Draft EIR/EIS and HCP. This analysis shows a small potential effect on reproductive productivity. Thus, under the Proposed Project, habitat availability in the drains would remain similar to existing conditions, but some species could experience slightly lower reproductive success.

With the creation of the managed marsh, individuals currently using the drainage system could move to exploit the new habitat, in which case these individuals would not experience any adverse effects. Alternatively, they could stay in the drains, but juveniles produced by individuals in the drains or in other marsh habitats (e.g., the refuges) could colonize the managed marsh. Although individuals remaining in the drains could experience reduced reproductive success relative to the No Project condition, the overall species population would increase because of colonization of the managed marsh. In short, the managed marsh would be expected to support an equivalent or greater number of individuals as are currently in the drains and thereby increase the overall population.

The ultimate location of the managed marsh mitigation would be determined by the HCP IT, with approval from USFWS and CDFG. One of the site selection criteria would be proximity to known populations of Yuma clapper rails (e.g., next to refuge lands). The intent of this criterion is to improve the probability of rapid colonization by rails. Because survey results suggest that clapper rail abundance is highest in managed marsh on the refuges, it is a reasonable expectation that colonization of the mitigation sites would occur. As described in Chapter 4 of the HCP, the monitoring program specified for clapper rails and other covered species would confirm use of the managed marsh

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Response to Comment R5-62 (continued)

mitigation sites by these species. If the results of the monitoring suggest that clapper rails are not using the sites at expected levels, the adaptive management component of the HCP would provide the mechanism for management adjustments to increase the attractiveness of the sites to rails and other covered species.

Response to Comment R5-63

Under the Drain Habitat Conservation Strategy, managed marsh would be created in 3 phases and could take up to 15 years to be completed. Creation of managed marsh addresses potential impacts of IID's covered activities on covered species using drain habitat, not effects to covered species at the Salton Sea. The primary potential impact to covered species in the drains relate to IID's O&M activities rather than effects attributable to water conservation (see Section 3.5 of the HCP). To the extent that species have colonized and use drain habitats, they have done so coincident with IID's O&M activities that have been ongoing for nearly 100 years. Water conservation could affect some species through changes in water quality and small changes in plant species composition. Any such changes would occur gradually over a period of about 20 years as the water conservation and transfer program ramps up; this is about the same temporal scale over which the managed marsh would be created.

Response to Comment R5-64

The relative contribution of drain flows, groundwater levels, and the water surface elevation of the Salton Sea in determining the characteristics and extent of the 133-acre parcel on the northwestern portion of the sea and the 17-acre parcel at the Wister Unit is uncertain. Potentially, the surface elevation of the Sea maintains groundwater levels or backs up drain water so as to create the two parcels designated as adjacent wetland areas dominated by cattails and bulrush. If true, then a decline in the Sea elevation could cause changes in the location, extent or species composition of the adjacent wetlands. Precisely what changes might occur cannot be predicted. Potentially, the adjacent wetland could move downslope as the Sea elevation declines. In the case of the 133-acre parcel on the northwestern portion of the Sea, the extent of cattail/bulrush vegetation could increase as drain flows increase in the CVWD Service Area.

Regardless of the exact interplay between drain flows, groundwater levels, and the surface elevation of the Sea, the Proposed Project would not cause changes in the extent, location or composition of the adjacent wetlands beyond those that would occur under the No Action alternative.

Response to Comment R5-65

As described in the DEIR/EIS, Shuford et al. (2000) reported that most of the 21 colonial bird nest sites were concentrated near the Whitewater River mouth at the north end of the Sea or between and including the New and Alamo River deltas along the southeastern shoreline. Under the Proposed Project, the rivers would continue to flow to the sea and provide fresh water that would maintain tamarisk along the banks of the rivers. Thus, trees and large shrubs in the deltas and at the river mouth that are used by herons, egrets, and other bird species for communal rookeries would persist.

Some colonial nest sites are located in or near areas designated as shoreline strand. Existing areas of shoreline strand could be lost as the surface elevation of the Sea recedes although, as described in the Draft EIR/EIS, it is uncertain whether and to what degree shoreline strand communities would be affected as the surface elevation of Sea declines. The surface elevation of the Salton Sea is projected to decline with or without implementation of the water conservation and transfer project, and if shoreline strand areas are sensitive to the surface elevation of the Salton Sea, changes in the extent of shoreline strand would take place irrespective of the Proposed Project. Therefore, potential changes in shoreline strand and adjacent wetlands were considered a less than significant impact.

The Proposed Project also includes implementation of the Salton Sea Conservation Strategy of the HCP. Under the HCP, IID would supply water to the Salton Sea such that the salinity did not exceed 60 ppt until 2030. As described in the Master Response for *Biology—Approach to Salton Sea Habitat Conservation Strategy* in Section 3 of this Final EIR/EIS, supplying this water to the Sea would maintain the surface elevation at a higher level than would be the case in the absence of the Proposed Project. Maintaining a higher surface elevation means that any changes in the extent of shoreline strand potentially occurring as the surface elevation declines would be delayed, so the habitat values of these areas would be maintained longer than would be the case under the No Action Alternative. Furthermore, after 2030, IID would monitor shoreline strand and adjacent wetland areas and compensate for net changes relative to existing conditions by acquiring or creating native tree habitat. Under the No Action Alternative, there would be no compensation for reduction in the acreage of shoreline strand and adjacent wetlands. Therefore, relative to the No Action Alternative, the Proposed Project would have beneficial effects.

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Response to Comment R5-66

As noted in the Draft EIR/EIS, there is uncertainty regarding changes that will occur in the amount of tamarisk scrub habitat adjacent to the Salton Sea as the elevation of the Sea declines. Approximately 293 acres of tamarisk (also known as saltcedar) scrub shoreline strand habitat could be adversely affected by the Proposed Project, out of a total 7,554 acres of tamarisk scrub habitat in the Project Area (roughly 4 percent). Tamarisk scrub is poor quality habitat, and the migratory songbird species potentially using tamarisk scrub in the project area find optimal habitat in native riparian communities of mesquite bosque. If monitoring shows a net reduction in the amount of tamarisk scrub adjacent to the Sea, IID would create or acquire native tree habitat to replace the net loss of tamarisk. Given the relatively small amount of tamarisk scrub habitat that likely would be affected under the Proposed Project, and the compensation requirement for net loss of tamarisk scrub with native tree habitat, impacts to migratory species associated with tamarisk scrub are not expected to be significant.

A short-term reduction could have significant impacts if tamarisk scrub habitat is a limiting factor for a species. Tamarisk scrub is an invasive, non-native plant that provides poor habitat quality for wildlife. Given its abundance in the Project Area (more than 7,000 acres quantified) and poor quality, it is not likely to be a limiting factor for any wildlife species, and a short-term reduction would not be expected to result in population-level effects.

Response to Comment R5-67

Although it is true that a smaller Sea would be shallower and subject to more thorough water-column mixing, it is not necessarily true that a smaller Sea will result in greater exposure to toxic constituents. The Sea has always been relatively shallow and very thoroughly wind-mixed. Historical descriptions of the basic limnology of the Sea have always emphasized that primary characteristic (e.g., Thiery, 1994; Arnal, 1961). The surface area for wind energy (length of fetch) will be reduced in a smaller Sea, which will act to offset effects of decreased water depth on sediment resuspension from wind-driven currents. However, should enhanced water movement over sediments occur, they will actually be beneficial in that they will disrupt bottom water anoxia and subsequent fish kills that now occur during some summer periods, and will keep sediment toxins more oxygenated and in a more sediment-bound state, rather than redissolved and remobilized (as may be expected in deeper, quieter, less oxygenated waters).

Response to Comment R5-68

The loads of these toxic and nutrient constituents do not directly cause detrimental impacts. Rather, it is through increased concentrations that effects could occur. In the case of pesticides, conservation alternatives are expected to reduce both load and concentrations in the Sea. Selenium concentrations are predicted to remain low in the sea, through natural uptake and sedimentation processes.

Instead, the major impacts to the Sea are expected through the gradual increase in salinity (rather than individual constituent concentrations). The entire community is expected to shift in dominant members. These effects far outweigh any effects due to possible enhanced exposure to resuspended sediments which may contain selenium, boron, or pesticides. As discussed in the response to Comment R5-67, more consistent wind-driven aeration of surface sediments would tend to keep toxic constituents in a sediment-bound and less toxic state than under conditions of more frequent anoxia.

Nutrient loads would be reduced and the balance altered (more nitrogen, less phosphorus in input concentrations) under conservation alternatives. Regardless, environmental effects of any increased nutrient resuspension through enhanced mixing of surface sediments would be through enhanced microbial and algal growth rates. There is no known quantitative link between those growth rates and expected detrimental impacts to invertebrates other than as anoxia. The frequency of sediment anoxia is expected to be reduced in a shallower, more wind-mixed sea.

Response to Comment R5-69

It is acknowledged that the current level of use of Mono Lake and the Salton Sea by certain species of birds differs. The reasons for the differences, however, are uncertain, and it is not appropriate to conclude that because a particular species currently uses Mono Lake at a low level, it will therefore use the Salton Sea at a low level when the sea transitions to a system dominated by halotolerant invertebrates. The level of use of a particular resource by a particular species is influenced by many factors, of which the composition of the food resource is

only one factor. The comparison of use of Mono Lake by various bird species that also use the Salton Sea was intended to show that: 1) many species using the Salton Sea can and do find food at Mono Lake, and 2) a transition to a more saline environment would not be expected to eliminate the Salton Sea as an important migratory stopover for birds.

Exactly how the vertebrate and invertebrate communities of the Salton Sea will respond to increases in salinity, and in turn how birds will respond, cannot be predicted. Despite historical differences, Mono Lake and the Great Salt Lake provide the best examples of what the Salton Sea might look like as its salinity increases. Migratory bird use of both of these lakes is very high, suggesting that migratory bird use will continue to be high at the Salton Sea. The exact species composition and relative abundance of migratory birds using the Salton Sea probably will change over time as food resources change at the Sea and bird populations respond to factors in other portions of their ranges. It is important to recognize that the composition and abundance of birds at the Salton Sea have historically fluctuated and transitioned over time. For example, black skimmers were unknown at the Salton Sea until 1972, but since then the population nesting at the sea has increased considerably. Double-crested cormorants nested at the sea in small numbers until 1999, when a large breeding colony became established on Mullet Island. Use of the Salton Sea by migrating and wintering white pelicans appears to have been low until the 1980s, after which the number of birds using the Sea increased.

Under both the No Action and Proposed Project, the salinity of the Sea will increase, resulting in transitions in the aquatic vertebrate and invertebrate communities and in the avian community exploiting these resources. There is no basis for assuming that biological resources of the Salton Sea would respond in a qualitatively different manner to increased salinity under the Proposed Project than under No Action conditions.